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January 2000

### Test 1772: John Deere 8110 Diesel 16-Speed

Tractor Museum

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# NEBRASKA OECD TRACTOR TEST 1772-SUMMARY 307

## JOHN DEERE 8110 DIESEL

### 16 SPEED

**Location of Test:** Nebraska Tractor Test Laboratory, University of Nebraska, Lincoln, Nebraska 68583-0832

**Dates of Test:** April 25-May 12, 2000

**Manufacturer:** John Deere Waterloo Works, P.O. Box 270, Waterloo Ia, USA, 50704

**FUEL, OIL and TIME:** Fuel No. 2 Diesel Specific gravity converted to 60°/60°F (15°/15°C) 0.8487 Fuel weight 7.067 lbs/gal (0.847 kg/l) Oil SAE 15W-40 API service classification CF-4 Transmission and hydraulic lubricant John Deere Hy-Gard fluid Front axle lubricant SAE 85W-140 API GL-5 Total time engine was operated: 29.5 hours

**ENGINE:** Make John Deere Diesel Type six cylinder vertical with turbocharger and air to air aftercooler Serial No. \*RG6081H098027\* Crankshaft lengthwise Rated engine speed 2200 Bore and stroke 4.56" x 5.06" (115.8 mm x 128.5 mm) Compression ratio 16.5 to 1 Displacement 496 cu in (8134 ml) Starting system 12 volt Lubrication pressure Air cleaner two paper elements and aspirator Oil filter one full flow cartridge Oil cooler engine coolant heat exchanger for crankcase oil, radiator for hydraulic and transmission oil Fuel filter one paper element and prestrainer Fuel cooler radiator for pump return fuel Muffler vertical Cooling medium temperature control 2 thermostats and variable speed fan

**ENGINE OPERATING PARAMETERS:** Fuel rate: 65.5 - 73.0 lb/h (29.7 - 33.1 kg/h) High idle: 2275 - 2325 rpm Turbo boost: nominal 14.2 - 18.6 psi (98 - 128 kPa) as measured 16.2 psi (112 kPa)

**CHASSIS:** Type front wheel assist Serial No.\*RW8110P001652\* Tread width rear 60.0" (1524 mm) to 130.6 (3318 mm) front 60.0" (1524 mm) to 88.0" (2235 mm) Wheelbase 116.1" (2950 mm) Hydraulic control system direct engine drive Transmission selective gear fixed ratio with full range operator controlled power shift Nominal travel speeds mph (km/h) first 1.38 (2.22) second 1.76 (2.83) third 2.24 (3.61) fourth 2.86 (4.61) fifth 3.47 (5.58) sixth 3.91 (6.29) seventh 4.43 (7.13) eighth 5.00 (8.04) ninth 5.64 (9.07) tenth 6.36 (10.23) eleventh 7.20 (11.59) twelfth 8.12 (13.07) thirteenth 10.34 (16.64) fourteenth 13.20 (21.25) fifteenth 16.81 (27.05) sixteenth 23.42 (37.70) @2400 engine rpm, reverse 1.20 (1.93), 3.03 (4.87), 3.72 (5.99), 6.56 (10.55) @1600 engine rpm Clutch wet multiple disc hydraulically actuated by foot pedal Brakes wet multiple disc hydraulically operated by two foot pedals that can be locked together Steering hydrostatic Power take-off 1 3/4" shaft -1000 rpm at 2179 engine rpm, (optional - 1 3/8" shaft, 540 at 1978 engine rpm or 1000 rpm at 2179 engine rpm) Unladen tractor mass 19345 lb (8775 kg)

#### POWER TAKE-OFF PERFORMANCE

| Power HP (kW)                      | Crank shaft speed rpm | Gal./hr (l/h)    | lb./hp.hr (kg/kW.h) | Hp./hr/gal (kW.h/l) | Mean Atmospheric Conditions |
|------------------------------------|-----------------------|------------------|---------------------|---------------------|-----------------------------|
| MAXIMUM POWER AND FUEL CONSUMPTION |                       |                  |                     |                     |                             |
| 165.39<br>(123.33)                 | 2200                  | 9.59<br>(36.28)  | 0.410<br>(0.249)    | 17.25<br>(3.40)     |                             |
| 188.26<br>(140.38)                 | 2000                  | 10.08<br>(38.17) | 0.379<br>(0.230)    | 18.67<br>(3.68)     |                             |

#### VARYING POWER AND FUEL CONSUMPTION

|                    |      |                 |                    |                 |                       |
|--------------------|------|-----------------|--------------------|-----------------|-----------------------|
| 165.39<br>(123.33) | 2200 | 9.59<br>(36.28) | 0.410<br>(0.249)   | 17.25<br>(3.40) | Air temperature       |
| 144.35<br>(107.64) | 2256 | 8.87<br>(33.59) | 0.434<br>(0.264)   | 16.27<br>(3.21) | 74°F (23°C)           |
| 108.31<br>(80.77)  | 2265 | 7.26<br>(27.48) | 0.474<br>(0.288)   | 14.92<br>(2.94) | Relative humidity     |
| 72.65<br>(54.18)   | 2276 | 5.60<br>(21.21) | 0.545<br>(0.332)   | 12.97<br>(2.55) | 58%                   |
| 36.38<br>(27.13)   | 2284 | 4.12<br>(15.59) | 0.800<br>(0.487)   | 8.84<br>(1.74)  | Barometer             |
| 1.00<br>(0.75)     | 2290 | 2.67<br>(10.12) | 18.890<br>(11.490) | 0.37<br>(0.07)  | 29.01" Hg (98.24 kPa) |

Maximum Torque - 586 lb.-ft. (794 Nm) at 1000 rpm  
Maximum Torque Rise -48.2%  
Torque rise at 1799 engine rpm - 36%

#### DRAWBAR PERFORMANCE

##### UNBALLASTED - FRONT DRIVE ENGAGED

##### FUEL CONSUMPTION CHARACTERISTICS

| Power Hp (kW)                                | Drawbar pull lbs (kN) | Speed mph (km/h) | Crank-shaft speed rpm | Slip % | Fuel Consumption lb./hp.hr (kg/kW.h) | Hp./hr/gal (kW.h/l) | Temp. °F (°C) cool-ing med | Air dry bulb | Barom. inch Hg (kPa) |
|--|-----------------------|------------------|-----------------------|--------|--------------------------------------|---------------------|----------------------------|--------------|----------------------|
| Maximum Power 7th Gear                       |                       |                  |                       |        |                                      |                     |                            |              |                      |
| 144.65<br>(107.87)                           | 12430<br>(55.29)      | 4.36<br>(7.02)   | 2199                  | 3.81   | 0.467<br>(0.284)                     | 15.14<br>(2.98)     | 199<br>(93)                | 60<br>(16)   | 28.64<br>(96.99)     |
| 75% of Pull at Maximum Power 7th Gear        |                       |                  |                       |        |                                      |                     |                            |              |                      |
| 112.56<br>(83.94)                            | 9299<br>(41.36)       | 4.54<br>(7.31)   | 2262                  | 2.72   | 0.511<br>(0.311)                     | 13.83<br>(2.72)     | 194<br>(90)                | 60<br>(16)   | 28.69<br>(97.16)     |
| 50% of Pull at Maximum Power 7th Gear        |                       |                  |                       |        |                                      |                     |                            |              |                      |
| 75.98<br>(56.66)                             | 6201<br>(27.58)       | 4.60<br>(7.40)   | 2270                  | 1.98   | 0.597<br>(0.363)                     | 11.83<br>(2.33)     | 187<br>(86)                | 59<br>(15)   | 28.70<br>(97.19)     |
| 75% of Pull at Reduced Engine Speed 9th Gear |                       |                  |                       |        |                                      |                     |                            |              |                      |
| 112.56<br>(83.94)                            | 9322<br>(41.46)       | 4.53<br>(7.29)   | 1772                  | 2.63   | 0.438<br>(0.266)                     | 16.15<br>(3.18)     | 193<br>(89)                | 60<br>(16)   | 28.69<br>(97.16)     |
| 50% of Pull at Reduced Engine Speed 9th Gear |                       |                  |                       |        |                                      |                     |                            |              |                      |
| 75.91<br>(56.61)                             | 6222<br>(27.68)       | 4.58<br>(7.36)   | 1776                  | 1.89   | 0.490<br>(0.298)                     | 14.42<br>(2.84)     | 188<br>(87)                | 59<br>(15)   | 28.70<br>(97.19)     |

## DRAWBAR PERFORMANCE

### UNBALLASTED - FRONT DRIVE ENGAGED MAXIMUM POWER IN SELECTED GEARS

| Power<br>Hp<br>(kW) | Drawbar<br>pull<br>lbs<br>(kN) | Speed<br>mph<br>(km/h) | Crank-<br>shaft<br>speed<br>rpm | Slip<br>% | Fuel Consumption<br>lb/hp.hr<br>(kg/kW.h) | Temp. °F<br>cool-<br>ing<br>med | Temp. °C<br>Air<br>dry<br>bulb | Barom.<br>inch<br>Hg<br>(kPa) |                  |
|---------------------|--------------------------------|------------------------|---------------------------------|-----------|---|---------------------------------|--------------------------------|-------------------------------|------------------|
| 4th Gear            |                                |                        |                                 |           |   |                                 |                                |                               |                  |
| 131.17<br>(97.81)   | 19272<br>(85.72)               | 2.55<br>(4.11)         | 2203                            | 13.24     | 0.517<br>(0.314)                          | 13.67<br>(2.69)                 | 193<br>(89)                    | 63<br>(17)                    | 28.61<br>(96.88) |
| 5th Gear            |                                |                        |                                 |           |   |                                 |                                |                               |                  |
| 151.84<br>(113.22)  | 18528<br>(82.42)               | 3.07<br>(4.95)         | 2090                            | 8.99      | 0.460<br>(0.280)                          | 15.38<br>(3.03)                 | 195<br>(90)                    | 61<br>(16)                    | 28.62<br>(96.92) |
| 6th Gear            |                                |                        |                                 |           |   |                                 |                                |                               |                  |
| 161.15<br>(120.17)  | 18011<br>(80.12)               | 3.36<br>(5.40)         | 1998                            | 7.94      | 0.439<br>(0.267)                          | 16.11<br>(3.17)                 | 200<br>(93)                    | 60<br>(16)                    | 28.63<br>(96.95) |
| 7th Gear            |                                |                        |                                 |           |   |                                 |                                |                               |                  |
| 164.41<br>(122.60)  | 15838<br>(70.45)               | 3.89<br>(6.27)         | 1997                            | 5.49      | 0.431<br>(0.262)                          | 16.38<br>(3.23)                 | 201<br>(94)                    | 60<br>(16)                    | 28.63<br>(96.95) |
| 8th Gear            |                                |                        |                                 |           |   |                                 |                                |                               |                  |
| 165.00<br>(123.04)  | 13922<br>(61.93)               | 4.44<br>(7.15)         | 1998                            | 4.52      | 0.430<br>(0.261)                          | 16.45<br>(3.24)                 | 204<br>(95)                    | 59<br>(15)                    | 28.65<br>(97.02) |
| 9th Gear            |                                |                        |                                 |           |   |                                 |                                |                               |                  |
| 163.90<br>(122.22)  | 12168<br>(54.12)               | 5.05<br>(8.13)         | 1999                            | 3.99      | 0.433<br>(0.263)                          | 16.33<br>(3.22)                 | 204<br>(95)                    | 59<br>(15)                    | 28.66<br>(97.05) |
| 10th Gear           |                                |                        |                                 |           |   |                                 |                                |                               |                  |
| 164.31<br>(122.53)  | 10732<br>(47.74)               | 5.74<br>(9.24)         | 2002                            | 3.27      | 0.430<br>(0.261)                          | 16.44<br>(3.24)                 | 202<br>(94)                    | 58<br>(14)                    | 28.68<br>(97.12) |
| 11th Gear           |                                |                        |                                 |           |   |                                 |                                |                               |                  |
| 162.17<br>(120.93)  | 9330<br>(41.50)                | 6.52<br>(10.49)        | 1998                            | 2.90      | 0.437<br>(0.266)                          | 16.16<br>(3.18)                 | 203<br>(95)                    | 58<br>(14)                    | 28.69<br>(97.16) |
| 12th Gear           |                                |                        |                                 |           |   |                                 |                                |                               |                  |
| 160.76<br>(119.88)  | 8155<br>(36.28)                | 7.39<br>(11.90)        | 2000                            | 2.44      | 0.439<br>(0.267)                          | 16.08<br>(3.17)                 | 205<br>(96)                    | 60<br>(16)                    | 28.69<br>(97.16) |
| 13th Gear           |                                |                        |                                 |           |   |                                 |                                |                               |                  |
| 157.42<br>(117.39)  | 6241<br>(27.76)                | 9.46<br>(15.22)        | 2001                            | 1.98      | 0.451<br>(0.274)                          | 15.69<br>(3.09)                 | 205<br>(96)                    | 60<br>(16)                    | 28.69<br>(97.16) |

**REPAIRS AND ADJUSTMENTS:** No repairs or adjustments.

**REMARKS:** All test results were determined from observed data obtained in accordance with official OECD, SAE and Nebraska test procedures. For the maximum power tests the fuel temperature at the injection pump inlet was maintained at 111°F(44°C). The pull in 3<sup>rd</sup> gear(ballasted tractor) was limited to avoid excessive tractor bouncing. The performance figures on this summary were taken from a test conducted under the OECD Code II test code procedure.

We, the undersigned, certify that this is a true and correct report of official Tractor Test No. **1772**, Nebraska Summary 307, July 7, 2000.

Brent T. Sampson  
Test Engineer

L.L. Bashford  
M. F. Kocher  
R. D. Grisso, Jr.  
Board of Tractor Test Engineers

| TRACTOR SOUND LEVEL WITH CAB       | Front Wheel Drive |                     |
|------------------------------------|-------------------|---------------------|
|                                    | Engaged<br>dB(A)  | Disengaged<br>dB(A) |
| At no load in 7th gear             | 72.1              | 72.4                |
| Transport speed-no load- 16th gear |                   | 74.5                |
| Bystander in 16th Gear             |                   | 88.7                |

### TIRES, BALLAST AND WEIGHT

|  | With Ballast            | Without Ballast         |
|--|-------------------------|-------------------------|
| <b>Rear Tires</b> - No., size, ply & psi(kPa)  | Four 18.4R46;**;11(75)  | Two 18.4R46;**;18(125)  |
| <b>Ballast</b> - Duals (total)                 | 1760 lb (798 kg)        | None                    |
| - Cast Iron (total)                            | 1285 lb (582 kg)        | None                    |
| <b>Front Tires</b> - No., size, ply & psi(kPa) | Two 14.9R34;***;28(195) | Two 14.9R34;***;24(165) |
| <b>Ballast</b> - Liquid (total)                | None                    | None                    |
| - Cast Iron (total)                            | 555 lb (252 kg)         | None                    |
| <b>Height of Drawbar</b>                       | 22.0 in (560 mm)        | 21.0 in(535 mm)         |
| <b>Static Weight with operator</b> - Rear      | 14430 lb (6545 kg)      | 11545 lb(5237 kg)       |
| - Front  | 8680 lb (3937 kg)       | 7965 lb(3613 kg)        |
| - Total  | 23110 lb(10482 kg)      | 19510 lb(8850 kg)       |

**DRAWBAR PERFORMANCE**  
**BALLASTED - FRONT DRIVE ENGAGED(2000 RPM)**  
**MAXIMUM POWER IN SELECTED GEARS**

| Power<br>Hp<br>(kW) | Drawbar<br>pull<br>lbs<br>(kN) | Speed<br>mph<br>(km/h) | Crank-<br>shaft<br>speed<br>rpm | Slip<br>% | Fuel Consumption<br>lb/hp.hr<br>(kg/kW.h) | Temp.°F(°C)<br>cool-<br>ing<br>med | Air<br>dry<br>bulb | Barom.<br>inch<br>Hg<br>(kPa) |                  |
|---------------------|--------------------------------|------------------------|---------------------------------|-----------|---|------------------------------------|--------------------|-------------------------------|------------------|
| 3rd Gear            |                                |                        |                                 |           |   |                                    |                    |                               |                  |
| 128.43<br>(95.77)   | 23838<br>(106.03)              | 2.02<br>(3.25)         | 2252                            | 13.52     | 0.527<br>(0.320)                          | 13.42<br>(2.64)                    | 192<br>(89)        | 63<br>(17)                    | 28.78<br>(97.46) |
| 4th Gear            |                                |                        |                                 |           |   |                                    |                    |                               |                  |
| 151.24<br>(112.78)  | 22646<br>(100.73)              | 2.50<br>(4.03)         | 2068                            | 8.57      | 0.465<br>(0.283)                          | 15.19<br>(2.99)                    | 195<br>(91)        | 64<br>(18)                    | 28.78<br>(97.46) |
| 5th Gear            |                                |                        |                                 |           |   |                                    |                    |                               |                  |
| 163.62<br>(122.01)  | 20236<br>(90.01)               | 3.03<br>(4.88)         | 1999                            | 5.66      | 0.434<br>(0.264)                          | 16.27<br>(3.20)                    | 200<br>(93)        | 65<br>(18)                    | 28.78<br>(97.46) |
| 6th Gear            |                                |                        |                                 |           |   |                                    |                    |                               |                  |
| 164.27<br>(122.49)  | 17780<br>(79.09)               | 3.46<br>(5.58)         | 1998                            | 4.27      | 0.432<br>(0.263)                          | 16.36<br>(3.22)                    | 199<br>(93)        | 66<br>(19)                    | 28.79<br>(97.49) |
| 7th Gear            |                                |                        |                                 |           |   |                                    |                    |                               |                  |
| 164.89<br>(122.96)  | 15640<br>(69.57)               | 3.95<br>(6.36)         | 2000                            | 3.83      | 0.429<br>(0.261)                          | 16.47<br>(3.24)                    | 201<br>(94)        | 67<br>(19)                    | 28.79<br>(97.49) |
| 8th Gear            |                                |                        |                                 |           |   |                                    |                    |                               |                  |
| 164.95<br>(123.00)  | 13777<br>(61.28)               | 4.49<br>(7.23)         | 2001                            | 3.11      | 0.430<br>(0.261)                          | 16.45<br>(3.24)                    | 203<br>(95)        | 68<br>(20)                    | 28.79<br>(97.49) |
| 9th Gear            |                                |                        |                                 |           |   |                                    |                    |                               |                  |
| 164.36<br>(122.56)  | 12127<br>(53.94)               | 5.08<br>(8.18)         | 2000                            | 2.65      | 0.433<br>(0.263)                          | 16.33<br>(3.22)                    | 204<br>(96)        | 68<br>(20)                    | 28.79<br>(97.49) |
| 10th Gear           |                                |                        |                                 |           |   |                                    |                    |                               |                  |
| 163.24<br>(121.73)  | 10611<br>(47.20)               | 5.77<br>(9.28)         | 2005                            | 2.29      | 0.433<br>(0.263)                          | 16.32<br>(3.22)                    | 201<br>(94)        | 69<br>(21)                    | 28.78<br>(97.46) |
| 11th Gear           |                                |                        |                                 |           |   |                                    |                    |                               |                  |
| 161.10<br>(120.13)  | 9243<br>(41.11)                | 6.54<br>(10.52)        | 2000                            | 2.01      | 0.439<br>(0.267)                          | 16.09<br>(3.17)                    | 203<br>(95)        | 69<br>(21)                    | 28.78<br>(97.46) |
| 12th Gear           |                                |                        |                                 |           |   |                                    |                    |                               |                  |
| 160.27<br>(119.51)  | 8128<br>(36.16)                | 7.39<br>(11.90)        | 2000                            | 1.75      | 0.438<br>(0.267)                          | 16.12<br>(3.17)                    | 201<br>(94)        | 71<br>(22)                    | 28.78<br>(97.46) |
| 13th Gear           |                                |                        |                                 |           |   |                                    |                    |                               |                  |
| 156.77<br>(116.91)  | 6218<br>(27.66)                | 9.46<br>(15.22)        | 2002                            | 1.36      | 0.452<br>(0.275)                          | 15.63<br>(3.08)                    | 201<br>(94)        | 71<br>(22)                    | 28.78<br>(97.46) |

**DRAWBAR PERFORMANCE**  
**BALLASTED - FRONT DRIVE ENGAGED(2200 RPM)**  
**MAXIMUM POWER IN SELECTED GEARS**

| Power<br>Hp<br>(kW) | Drawbar<br>pull<br>lbs<br>(kN) | Speed<br>mph<br>(km/h) | Crank-<br>shaft<br>speed<br>rpm | Slip<br>% | Fuel Consumption<br>lb/hp.hr<br>(kg/kW.h) | Hp.hr/gal<br>(kW.h/l) | Temp.°F(°C)<br>cool-<br>ing<br>med | Air<br>dry<br>bulb | Barom.<br>inch<br>Hg<br>(kPa) |
|---------------------|--------------------------------|------------------------|---------------------------------|-----------|---|-----------------------|------------------------------------|--------------------|-------------------------------|
| 3rd Gear            |                                |                        |                                 |           |   |                       |                                    |                    |                               |
| 127.60<br>(95.15)   | 23813<br>(105.93)              | 2.01<br>(3.23)         | 2252                            | 14.03     | 0.528<br>(0.321)                          | 13.38<br>(2.64)       | 192<br>(89)                        | 63<br>(17)         | 28.78<br>(97.46)              |
| 4th Gear            |                                |                        |                                 |           |   |                       |                                    |                    |                               |
| 142.15<br>(106.00)  | 19232<br>(85.55)               | 2.77<br>(4.46)         | 2198                            | 4.89      | 0.477<br>(0.290)                          | 14.83<br>(2.92)       | 197<br>(92)                        | 64<br>(18)         | 28.78<br>(97.46)              |
| 5th Gear            |                                |                        |                                 |           |   |                       |                                    |                    |                               |
| 145.29<br>(108.34)  | 15993<br>(71.14)               | 3.41<br>(5.48)         | 2202                            | 3.56      | 0.464<br>(0.282)                          | 15.22<br>(3.00)       | 198<br>(92)                        | 66<br>(19)         | 28.79<br>(97.49)              |
| 6th Gear            |                                |                        |                                 |           |   |                       |                                    |                    |                               |
| 145.34<br>(108.38)  | 14115<br>(62.79)               | 3.86<br>(6.21)         | 2200                            | 3.11      | 0.464<br>(0.282)                          | 15.22<br>(3.00)       | 199<br>(93)                        | 66<br>(19)         | 28.79<br>(97.49)              |
| 7th Gear            |                                |                        |                                 |           |   |                       |                                    |                    |                               |
| 144.38<br>(107.66)  | 12324<br>(54.82)               | 4.39<br>(7.07)         | 2202                            | 2.74      | 0.468<br>(0.284)                          | 15.12<br>(2.98)       | 200<br>(93)                        | 68<br>(20)         | 28.80<br>(97.53)              |
| 8th Gear            |                                |                        |                                 |           |   |                       |                                    |                    |                               |
| 144.83<br>(108.00)  | 10924<br>(48.59)               | 4.97<br>(8.00)         | 2201                            | 2.38      | 0.466<br>(0.283)                          | 15.17<br>(2.99)       | 200<br>(93)                        | 68<br>(20)         | 28.80<br>(97.53)              |
| 9th Gear            |                                |                        |                                 |           |   |                       |                                    |                    |                               |
| 142.69<br>(106.41)  | 9506<br>(42.28)                | 5.63<br>(9.06)         | 2202                            | 2.19      | 0.473<br>(0.288)                          | 14.95<br>(2.94)       | 198<br>(92)                        | 68<br>(20)         | 28.79<br>(97.49)              |
| 10th Gear           |                                |                        |                                 |           |   |                       |                                    |                    |                               |
| 142.16<br>(106.01)  | 8376<br>(37.26)                | 6.36<br>(10.24)        | 2201                            | 2.01      | 0.473<br>(0.288)                          | 14.95<br>(2.94)       | 198<br>(92)                        | 69<br>(21)         | 28.78<br>(97.46)              |
| 11th Gear           |                                |                        |                                 |           |   |                       |                                    |                    |                               |
| 138.09<br>(102.98)  | 7162<br>(31.86)                | 7.23<br>(11.64)        | 2203                            | 1.64      | 0.489<br>(0.298)                          | 14.44<br>(2.85)       | 199<br>(93)                        | 70<br>(21)         | 28.78<br>(97.46)              |
| 12th Gear           |                                |                        |                                 |           |   |                       |                                    |                    |                               |
| 137.42<br>(102.48)  | 6320<br>(28.11)                | 8.15<br>(13.12)        | 2198                            | 1.45      | 0.495<br>(0.301)                          | 14.28<br>(2.81)       | 198<br>(92)                        | 70<br>(21)         | 28.78<br>(97.46)              |

### THREE POINT HITCH PERFORMANCE (OECD Static Test)

CATEGORY: III

Quick Attach: Yes

Maximum Force Exerted Through Whole Range:

i) Opening pressure of relief valve:

Sustained pressure at compensator cutoff:

ii) Pump delivery rate at minimum pressure and rated engine speed:

iii) Pump delivery rate at maximum

hydraulic power:

Delivery pressure:

Power:

ii) Pump delivery rate at minimum pressure and rated engine speed:

iii) Pump delivery rate at maximum

hydraulic power:

Delivery pressure:

Power:

lift cylinders

1x80 mm&1x90 mm

9617 lb (42.8 kN)

NA

2920 psi (201 bar)

two outlet sets combined

35.1 GPM(132.9 l/min)

33.2 GPM(125.7 l/min)

2550 psi (176 bar)

49.4 HP (36.8 kW)

single outlet set

31.8 GPM(120.4 l/min)

30.4 GPM(115.1 l/min)

2250 psi (155 bar)

39.9 HP (29.8 kW)

lift cylinders

1x90 mm&1x100 mm

13622 lbs (60.6 kN)

NA

2890 psi (199 bar)

44.3 GPM(167.7 l/min)

41.2 GPM(156.0 l/min)

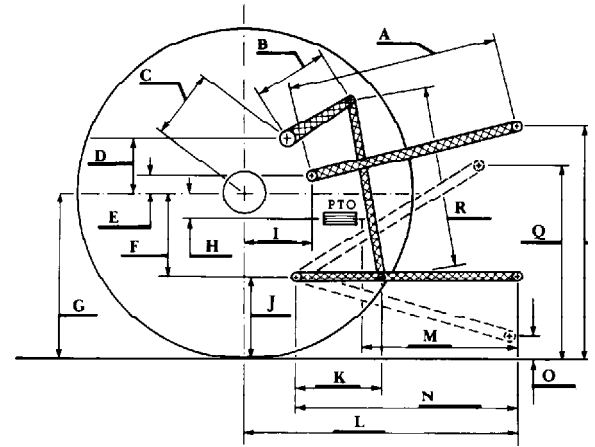
2420 psi (167 bar)

58.2 HP (43.4 kW)

28.5 GPM(107.9 l/min)

2150 psi (148 bar)

35.7 HP (26.7 kW)



### THREE POINT HITCH PERFORMANCE

Observed Maximum Pressure psi.(bar)

2920(201)

Location:

remote outlet

Hydraulic oil temperature: °F(°C)

150(65)

Location:

pump inlet

Category:

III

Quick attach:

yes

**SAE Static Test** System pressure 2640 psi (182 Bar)  
with lift cylinders (1) 80 mm and (1) 90 mm

Hitch point distance to ground level in. (mm) 8.0(203) 16.0(406) 24.0(610) 32.0(813) 40.0(1016)

Lift force on frame lb

10967

10611

10647

10440

9599

" " " " " " (kN)

(48.8)

(47.2)

(47.4)

(46.4)

(42.7)

with lift cylinders (1) 90 mm and (1) 100 mm

Hitch point distance to ground level in. (mm) 8.0(203) 16.0(406) 24.0(610) 32.0(813) 40.0(1016)

Lift force on frame lb

15413

14990

14990

14621

13689

" " " " " " (kN)

(68.6)

(66.7)

(66.7)

(63.0)

(60.9)

**ASAE Static Test** System pressure 2900 psi (200 Bar)  
with lift cylinders (1) 80 mm and (1) 90 mm

Hitch point distance to ground level in. (mm) 8.0(203) 16.0(406) 24.0(610) 32.0(813) 40.0(1016)

Lift force on frame lb

12020

11694

11733

11474

10518

" " " " " " (kN)

(53.5)

(52.0)

(52.2)

(51.0)

(46.8)

with lift cylinders (1) 90 mm and (1) 100 mm

Hitch point distance to ground level in. (mm) 8.0(203) 16.0(406) 24.0(610) 32.0(813) 40.0(1016)

Lift force on frame lb

16922

16458

16458

16132

15011

" " " " " " (kN)

(75.3)

(73.2)

(73.2)

(71.8)

(66.8)

### HITCH DIMENSIONS AS TESTED NO LOAD

|     | inch | mm   |
|-----|------|------|
| A   | 28.3 | 718  |
| B   | 19.5 | 495  |
| C   | 21.7 | 550  |
| D   | 19.5 | 495  |
| E   | 4.8  | 123  |
| F   | 13.8 | 350  |
| G   | 35.6 | 905  |
| H   | 7.8  | 197  |
| I   | 20.3 | 515  |
| J   | 21.8 | 555  |
| K   | 28.2 | 716  |
| L   | 48.9 | 1242 |
| *L' | 52.4 | 1331 |
| M   | 22.0 | 558  |
| N   | 38.1 | 967  |
| O   | 9.0  | 229  |
| P   | 43.8 | 1114 |
| Q   | 40.1 | 1019 |
| R   | 41.5 | 1054 |

\*L' to Quick Attach ends



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